18. The process of claim 5 wherein the group Y of structure IIIa represents chorine or bromine.

19. A method of treatment or prophylaxis of an ischaemic brain disorder in a mammal, comprising administering an effective amount of a compound of claim 1.

20. The method of claim 19 wherein said mammal is human.

21. The method of claim 19 wherein said ischaemic brain disorder is stroke, reperfusion damage, or brain trauma.

Remarks / Explanations

As a result of this preliminary amendment, claims 1-11 and 15-21 are pending in the application. Claims 12-14 have been canceled. Claims 1, 2 and 5-11 have been amended. New claims 15-21 have been added.

New claims 15-18 recite matter deleted from original claim 5. New claims 19-21 replace original claims 12-14.

No new matter has been added.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

In view of the above amendments and explanations, this application is deemed to be in condition for allowance, and allowance is accordingly requested.

Respectfully submitted,

Reg. No. 31018
Phone: (203) 812-2712
Date: 11/29/01

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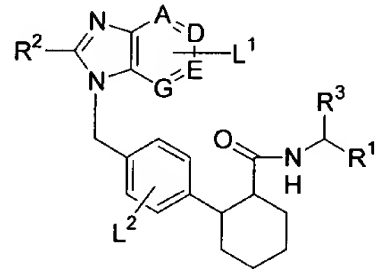
Bayer Corporation
400 Morgan Lane
West Haven, CT 06516-4175

Version with markings to show changes made:

1. (Amended) Compounds of the general formula (I)



(I),

in which

A, D, E and G are identical or different and represent CH groups or nitrogen atoms,

[L1] L^1 and [L2] L^2 are identical or different and independently of one another each represents one or more radicals selected from the group consisting of hydrogen, halogen, hydroxyl, carboxyl, cyano, nitro, trifluoromethyl, trifluormethoxy, [(C1-C6)] $(C_1\text{-}C_6)$-alkyl, [(C1-C6)] $(C_1\text{-}C_6)$-alkoxy [or (C1-C6)] and $(C_1\text{-}C_6)$-alkoxy-carbonyl,

R^1 represents the CH_2-OH group, or
represents a radical of the formula CO-NR^4R^5

in which

R^4 and R^5 are identical or different and each represents hydrogen or $(C_1\text{-}C_6)$-alkyl,

R^2 represents $(C_3\text{-}C_8)$-cycloalkyl,

represents (C_1-C_8)-alkyl which is optionally interrupted by an oxygen or sulphur atom or by a [radial] radical NR^6,

represents a 4- to 8-membered saturated heterocycle which is attached to the imidazole ring via a nitrogen atom and which optionally contains a further oxygen or sulphur atom, or

represents a 4- to 8-membered saturated hetrocycle which contains a radical of the formula NR^7 and optionally additionally one nitrogen, oxygen or sulphur atom,

where (C_3-C_8)-cycloalkyl, (C_1-C_8)-alkyl which is optionally interrupted by one oxygen or sulphur atom, the 4- to 8-membered saturated heterocycle which is attached to the imidazole ring via a nitrogen atom and which optionally contains one further oxygen or sulphur atom and optionally (C_1-C_8)-alkyl which is interrupted by a radical of the formula NR^6 and optionally the 4- to 8-membered saturated heterocycle which contains a radical of the formula NR^7 and optionally additionally one nitrogen or sulphur atom are substituted by one to three hydroxyl groups and/or by a radical of the formula $-NR^8R^9$

in which

R^6 and R^7 are identical or different and each represents hydrogen, (C_1-C_6)-alkyl, hydroxy-(C_1-C_6)-alkyl or (C_3-C_7)-cycloalkyl,

R^8 and R^9 are identical or different and each represents hydrogen, (C_1-C_6)-alkyl or (C_3-C_7)-cycloalkyl,

or

R^8 and R^9 together with the nitrogen atom form a 4- to 8-membered saturated heterocycle which may optionally additionally contain one oxygen or sulphur atom or a radical of the formula NR^{10}

in which

R^{10} represents hydrogen, (C_1-C_6)-alkyl or (C_3-C_7)-cycloalkyl

and

R^3 represents a phenyl, naphthyl, pyrimidinyl, pyridyl, furyl or thienyl ring, where the rings are optionally mono- or polysubstituted by radicals selected from the group consisting of halogen, hydroxyl, carboxyl, cyano, nitro, trifluoromethyl, trifluoromethoxy, (C_1-C_6)-alkyl, (C_1-C_6)-alkoxy[or]and (C_1-C_6)-alkoxycarbonyl,

and their salts.

2. (Amended) Compounds according to Claim 1

where

A, D, E and G each represent the CH group,

or one of the radicals A, D, E and G represents a nitrogen atom and the others each represent the CH group,

L^1 and L^2 are identical or different and independently of one another each represents one or more radicals selected from the group consisting of hydrogen, fluorine, chlorine, cyano, trifluoromethyl [or] and trifluoromethoxy,

R^1 represents the $-CH_2$-OH group, or

represents a radical of the formula $-CO-NR^4R^5$

in which

R^4 and R^5 are identical or different and each represents hydrogen or (C_1-C_3)-alkyl,

R^2 represents (C_3-C_7)-cycloalkyl,

represents (C_1-C_6)-alkyl which is optionally interrupted by an oxygen or sulphur atom or by a radical NR^6,

represents a 5- to 7-membered saturated heterocycle which is attached to the imidazole ring via a nitrogen atom and which optionally contains a further oxygen or sulphur atom, or

represents a 5- to 7-membered saturated heterocycle which contains a radical of the formula NR^7 and optionally additionally one nitrogen, oxygen or sulphur atom,

where (C_3-C_7)-cycloalkyl, (C_1-C_6)-alkyl which is optionally interrupted by one oxygen or sulphur atom, the 5- to 7-memebered saturated heterocycle which is attached to the imidazole ring via a nitrogen atom and which optionally contains one further oxygen or sulphur atom and optionally (C_1-C_6)-alkyl which is interrupted by a radical of the formula NR^6 and optionally the 5- to 7-membered saturated heterocycle which contains a radical of the formula NR^7 and optionally additionally one nitrogen, oxygen or sulphur atom are substituted by one to three hydroxyl groups and/or by a radical of the formula $-NR^8R^9$

in which

R^6 and R^7 are identical or different and each represents hydrogen, (C_1-C_4)-alkyl, hydroxy-(C_1-C_4)-alkyl or (C_3-C_6)-cycloalkyl,

R^8 and R^9 are identical or different and each represents hydrogen, (C_1-C_4)-alkyl or (C_3-C_6)-cycloalkyl,

or

R^8 and R^9 together with the nitrogen atom form a 5- to 7-membered saturated heterocycle which may optionally additionally contain one oxygen or sulphur atom or a radical of the formula NR^{10}

in which

R^{10} represents hydrogen, (C_1-C_4)-alkyl or (C_3-C_6)-cycloalkyl

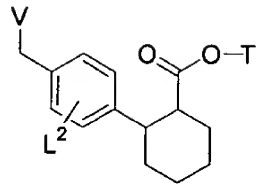
and

R^3 represents a phenyl, pyridyl or thienyl ring, which is optionally mono- or polysubstituted by radicals selected from the group consisting of fluorine, chlorine, cyano, trifluoromethyl [or] <u>and</u> trifluoromethoxy,

and their salts.

5. (Amended) Process for preparing compounds of the general formula (I) according to Claim[s] 1 [to 4], characterized in that

[[A]] <u>(A)</u> compounds of the general formula (II)



(II),

in which

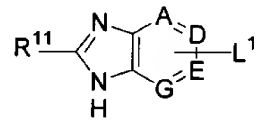
L^2 is as defined in Claim 1,

T represents (C_1-C_4)-alkyl, [preferably methyl or tert-butyl,]

and

V represents a suitable leaving group, [such as, for example, halogen, mesylate or tosylate, preferably bromine,]

is initially coverted by reaction with compounds of the general formula (III)



(III),

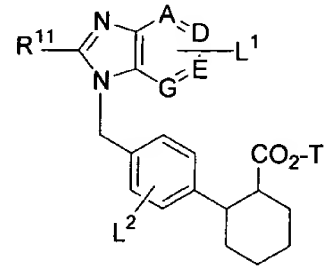
in which

A, D, E, G and L^1 are each as defined in Claim 1

and

R^{11} has the meaning of R^2 given in Claim 1, where amino and hydroxyl functions are optionally blocked by suitable amino or hydroxyl protective groups,

in inert solvents, depending on the definition of R^{11} optionally in the presence of a base, into the compounds of the general formula (IV)

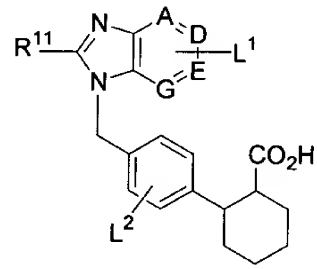


(IV),

in which

R^{11}, A, D, E,G, L^1, L^2 and [t] T are each as defined above,

which are converted in a subsequent step using acids or bases into the corresponding carboxylic acids of the general formula (V)

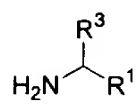


(V),

in which

R^{11}, A, D, E, G, L^1 and L^2 are each as defined above,

which are subsequently reacted [by known methods] with compounds of the general formula (VI)



(VI),

in which

R^1 and R^3 are each as defined in Claim 1

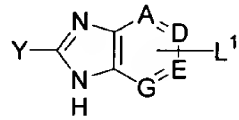
in inert solvents,

and, if R^{11} carries one of the abovementioned protective groups, these are optionally removed by customary methods either in the hydrolysis to the acids (IV)- >(V) or after the reaction with the compounds of the general formula (VI),

or

[[B]] (B) if R^2 of structure (I) shown in Claim 1 represents a saturated heterocycle which is attached directly via a nitrogen atom to the imidazole ring,

the abovementioned compounds of the general formula (II) are initially converted with compounds of the general formula (IIIa)



(IIIa) ,

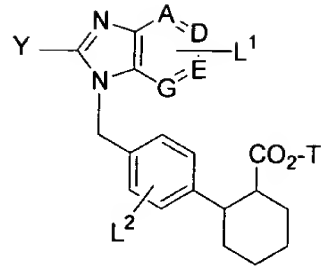
in which

A, D, E, G and L^1 are each as defined in Claim 1

and

Y represents halogen or mesyl, [preferably chlorine, bromine, or mesyl,]

in inert solvents into the corresponding compounds of the formula (VII)



(VII) ,

in which

Y, A, D, E, G, L^1, L^2 and T are each as defined above,

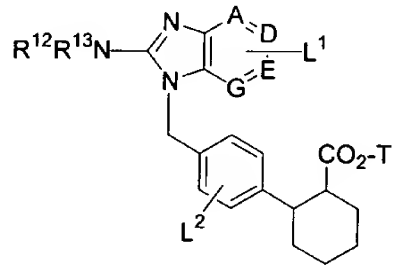
which are reacted in a subsequent step with compounds of the general formula (VIII)

$$HNR^{12}R^{13} \qquad \text{(VIII)}$$

in which

R^{12} and R^{13} together with the nitrogen atom form a heterocycle according to the definition of R^2

to give compounds of the general formula (IX)

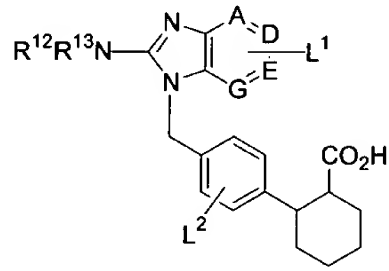


(IX) ,

in which

A, D, E, G, L^1, L^2, R^{12}, R^{13} and T are each as defined above,

which are, in the subsequent steps, converted as described under [[A]] (A) by hydrolysis into the corresponding carboxylic acids of the general formula (X)



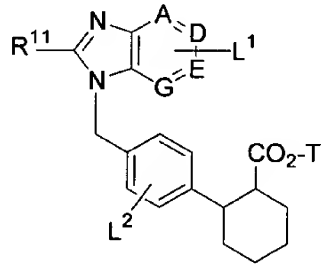
(X),

in which

A, D, E, G, L^1, L^2, R^{12}, and R^{13} are each defined above,

and these compounds are subsequently reacted with the compounds of the general formula (VI) according to known methods for preparing amides from carboxylic acids and amines and, if appropriate, converted into the corresponding salts by reaction with an acid.

6. (Amended) Compounds of the general formula (IV)



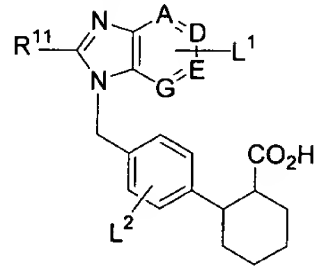
(IV),

in which

A, D, E, G, L^1, and L^2, [R^{11} and T] are each as defined in Claim[s]1 [and 5] and R^{11} and T are defined as in Claim 5

and their salts.

7. (Amended) Compounds of the general formula (V)



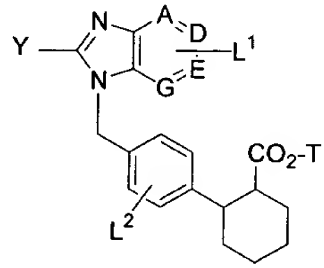
(V),

in which

A, D, E, G, L^1, and L^2, [and R^{11}] are each as defined in Claim[s] 1 [and 5] and R^{11} is as defined in Claim 5

and their salts.

8. (Amended) Compounds of the general formula (VII)



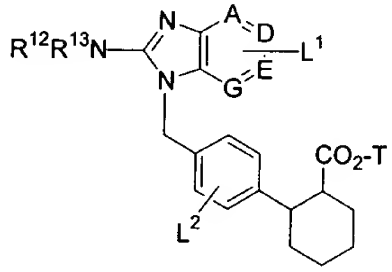
(VII),

in which

A, D, E, G, L^1, and L^2, [Y and T] are each as defined in Claim[s] 1 [and 5] and Y and T are as defined in Claim 5

and their salts.

9. (Amended) Compounds of the general formula (IX)



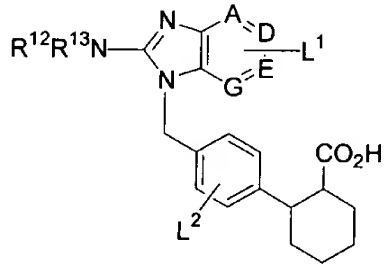
(IX)

in which

A, D, E, G, L^1, and L^2, [R^{12}, R^{13} and T] are each as defined in Claim[s]1 [and 5] and R^{12}, R^{13} and T are as defined in Claim 5.

and their salts.

10. (Amended) Compounds of the general formula (X)



(X)

in which

A, D, E, G, L^1, and L^2, [$R^{11}$and R^{12}] are each as defined in Claim[s]1 [and 5] and R^{12} and R^{13} are as defined in claim 5

and their salts.

11. (Amended) [Medicaments,] A pharmaceutical composition comprising a compound of the general formula (I) according to [any of] Claim[s] 1 [to 4] in admixture with at least one pharmaceutically acceptable, essentially non-toxic carrier or excipient.